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DIET AND EXERCISE ADHERENCES CORRELATIONS BY SEXES IN WEIGHT LOSS PROGRAMS

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Introduction Physical activity in conjunction with moderate dietary energy restriction and behavior modification has been promoted as an important component of a successful weight-loss regimen (1-3). Low-energy diets and physical activity are important for weight loss, defining successful efficacy (4, 5). Therefore, the aim of this study was to compare the diet and exercise adherences by sex, and know if both adherences have any kind of correlation. Methods One hundred eighty overweight and obese people (Body Mass Index: 25-34.9 kg•m-2), aged from 18 to 50 years, participated in the study (84 males, 96 females) during 6 months. Four types of treatments were randomly assigned: strength training (S, n=43), endurance training (E, n=51), combined S and E training (SE, n=46), and diet and physical recommendations (C, n=40). All participants followed a 25% calorie restriction diet. Adherence to diet was calculated as the estimated Kcal of the diet divided by the real Kcal intake in percentage, representing the major adherence the value 100%. Higher values mean a higher restriction and on the contrary. Adherence to exercise was calculated by the number of sessions developed from the total. A MANOVA was used to determine differences between sexes in diet and exercise adherences. The Pearson's correlation coefficients were used to analyze the relationship between both adherences. Probability level for statistical significance was set at α=0.05. Results The weight loss was lower in women than in men (-7.56±4.05 vs. -9.56±4.58 kg, respectively, p=0.02). Women were more adherent to diet program (104.03±22.46%) than men (116.33±35.42%) (p=0.017). However, for exercise program women and men had the same adherence (88.9±7.25 vs. 88.85±7.63%, respectively, p=0.967). No correlations were found between diet and exercise adherences, since for women it was obtained r=-0.006 (p=0.96) and for men r=-0.117 (p=0.379). Discussion Although women had a higher adherence to diet than men (near to 100 %), men followed a more restrictive diet what might explain the greater weight loss. In a weight loss program, exercise adherence is equal for women and men, so physicians should pay more attention to diet fidelity. As no significant correlations between adherences have been found, it is not possible to conclude that people who was more adherent to diet, was more adherent to exercise too. References 1. Pate RR, et al. JAMA. 1995 Feb 1;273(5):402-7. 2. Volpe SL, et al. J Am Coll Nutr. 2008 Apr;27(2):195-208. 3. Stiegler P, et al. Sports Medicine. 2006;36(3):239-62. 4. Catenacci VA, et al. Nat Clin Pract Endocrinol Metab. 2007 Jul;3(7):518-29. 5. Tsai AG, et al. Obesity (Silver Spring). 2006 Aug;14(8):1283-93.